[illegible]

§1.3 [illegible]

[illegible]

XUE XI MU BIAO

1. [illegible]“[illegible]”“[illegible]”“[illegible]”[illegible].
2. [illegible].
3. [illegible].
4. [illegible].

NEI RONG SUO YIN

1

PART ONE

[illegible]

□□□□　□□□□□“□”“□”“□”

□□	□□	□□
$p\wedge q$	□□□□“□”□□□ p □□□ q □□□□□□□□□□	p□q
$p\vee q$	□□□□“□”□□□ p □□□ q □□□□□□□□□□	p□q
□p	□□□□□ p □□□□□□□□□□	□p □ p□□□

[illegible][illegible][illegible][illegible] “$p\wedge q$”“$p\vee q$”“[illegible]p” [illegible][illegible][illegible][illegible][illegible]

p	q	$p\vee q$	$p\wedge q$	[illegible]p
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] [illegible]

SI KAO BIAN XI PAN DUAN ZHENG WU

1. [illegible]“[illegible]”“[illegible]”[illegible].(　　　) ×

2. “$p\vee q$ [illegible]”[illegible]“ p [illegible]”[illegible].(　　　) ×

3. [illegible]“ $p\vee$([illegible] p)” [illegible].(　　　) √

4. [illegible].(　　　) ×

2

PART TWO

[illegible]

[illegible]

[illegible]1 [illegible].

(1) [illegible] $2x^2$ [illegible] 1 [illegible] 0 [illegible]

[illegible] [illegible]“[illegible] p” [illegible] p [illegible] $2x^2$ [illegible] 1 [illegible] 0 [illegible].

(2)12□□3□4□□□

□ □□□□□“p□q”□□□□□□□□p□12□□3□□□q□12□□4□□.

(3) [illegible] 45° [illegible].

[illegible] [illegible]“ p [illegible] q” [illegible] p [illegible] 45° [illegible] q [illegible] 45° [illegible].

□□□
□

(1)□□□
□□□□□□□□□□□□□□□□□□□□□□. □“□……□□□……”□“□”□“□□……□□
□……”□“□……□□……”□“□□……□□□……”□.

(2)□□□□□□□□□□□□□□□□□□□□□□□□□□. □ $a \geq 3$ □ $a>3$ □ a □ 3 □ xy
□ 0 □ x □ 0 □ y □ 0 □ x^2 □ y^2 □ 0 □ x □ 0 □ y □ 0.

[illegible] 1 [illegible]“[illegible]”[illegible]________[illegible].

$p \wedge q$

[illegible]

[illegible]2 [illegible]“$p \vee q$”“$p \wedge q$”“[illegible]p”[illegible]

(1)p[illegible]π[illegible]q[illegible]e[illegible]

[illegible] “$p \vee q$”[illegible]π[illegible]e[illegible]

“$p \wedge q$”[illegible]π[illegible]e[illegible]

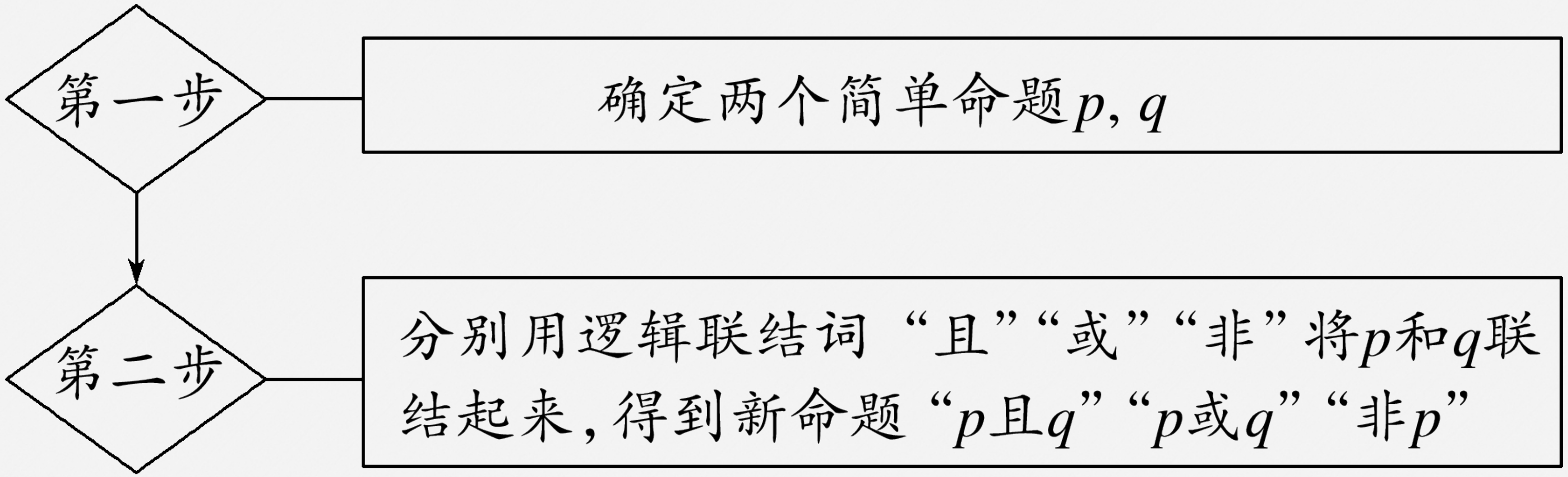
“[illegible]p”[illegible]π[illegible].

(2)p [illegible] q [illegible].

[illegible] “$p\vee q$” [illegible]

“$p\wedge q$” [illegible]

“[illegible] p” [illegible].


第一步
确定两个简单命题p, q
第二步
分别用逻辑联结词“且”“或”“非”将p和q联结起来，得到新命题“p且q”“p或q”“非p”

[illegible]2 [illegible].

(1)$p\vee q$[illegible]p[illegible]$4\in\{2,3\}$[illegible]q[illegible]$2\in\{2,3\}$[illegible]

[illegible] $4\in\{2,3\}$[illegible]$2\in\{2,3\}$.

(2)$p\wedge q$[illegible]p[illegible]$4>4$[illegible]q[illegible]23[illegible]

[illegible] $4>4$[illegible]23[illegible].

(3)[illegible]p[illegible]p[illegible]5[illegible]15[illegible].

[illegible] 5[illegible]15[illegible].

□□□□□□□□□□□□□□□□

□3　□□□□□□□□□□□□□□□□“$p\wedge q$”“$p\vee q$”“□p”□□□□□□□□.

(1)p□2□□□□q□2□□□□

□　□□p□□□□□q□□□□□

□□$p\wedge q$□□□□□$p\vee q$□□□□□□p□□□□.

(2)p[illegible]$f(x)$[illegible]3^x[illegible]$3^{[illegible]x}$[illegible]q[illegible]$f(x)$[illegible]3^x[illegible]$3^{[illegible]x}$[illegible]

[illegible]　[illegible]p[illegible]q[illegible]

[illegible]$p\wedge q$[illegible]$p\vee q$[illegible]p[illegible].

(3)p□□(1,2)□□□$2x$□y□4□0□□q□□(1,2)□□□x^2□$(y$□$3)^2$□2□□

□　□□p□□□□□q□□□□□

□□$p\wedge q$□□□□□$p\vee q$□□□□□p□□□□.

(4)p[illegible]x^2[illegible]x[illegible]$2<0$[illegible]q[illegible]y[illegible]x^2[illegible]x[illegible]2[illegible]x[illegible].

[illegible] [illegible]p[illegible]q[illegible]

[illegible]$p∧q$[illegible]$p∨q$[illegible]p[illegible].

□□□
□

□□“$p\wedge q$”“$p\vee q$”“□p”□□□□□□□□□□

□□□□□□□□□□□□□□□□□

□□□□□□□□□□p□q□□□□

□□□□□□□□□□□□□.

□□□□□□□□□□“□”□□□□□“□”□□.

□□□□ 3　(1) □□□□ p □ 4 □ 2 □ 5 □□□ q □ 3>2 □□□□□□□□□□□□

A. p □ q □□□□ q □□　　B. p □ q □□□□ p □□

√ C. p □ q □□□□ p □□　　D. p □ q □□□ p □ q □□

□□　□ p □ 4 □ 2 □ 5 □□□ p □□□□□

□ q □ 3>2 □

□□□□ q □□□□□

□□ p □ q □□□ p □ q □□□□ p □□□□ q □□□□□ C.

(2) □□□□ p □□□□□ $x\in\mathbf{R}$ □□□ $2^x>0$ □ q □"$x>1$"□"$x>2$"□□□□□□□□□□□□□

□□□□□□□

A. $p\wedge q$

B. $(□p)\wedge(□q)$

C. $(□p)\wedge q$

D. $p\wedge(□q)$ √

□□　□□□□ p □□□□□ $x\in\mathbf{R}$ □□□ $2^x>0$ □

□□□□□□□□□□□□ p □□□□.

"$x>1$"□□□□"$x>2$"□□□"$x>2$"□□□"$x>1$"□

□□"$x>1$"□"$x>2$"□□□□□□□□□ q □□□□.

□□ $p\wedge(□q)$ □□□□□□□ D.

□□□□□□□□□□□□□□

□□ □□ p □□□ x^2 □ mx □ 1 □ 0 □□□□□□□□□□□ q □□□ $4x^2$ □ $4(m$ □ $2)x$ □ 1 □ 0 □□□□□□“$p \vee q$”□□□□□“$p \wedge q$”□□□□□□□□ m □□□□□.

□ p□□□ x^2□ mx□ 1□ 0 □□□□□□□□□□ $\Leftrightarrow \begin{cases} \Delta□ m^2□ 4>0□ \\ □ m<0 \end{cases}$

$\Leftrightarrow m>2$.

q□□□ $4x^2$□ $4(m$□ $2)x$□ 1□ 0□□□□$\Leftrightarrow \Delta$□ $16(m$□ $2)^2$□ $16<0\Leftrightarrow 1<m<3$.

□□□ p□ $m\leq 2$□□ q□ $m\leq 1$□ $m\geq 3$.

□□“ $p\vee q$” □□□□□“ $p\wedge q$” □□□□□

□□ p□□□ q□□□□ p□□□ q□□.

(1) [illegible] p [illegible] q [illegible] p [illegible] q [illegible]

[illegible] $\begin{cases} m>2 \text{[illegible]} \\ m\leq 1 \text{[illegible]} m\geq 3 \text{[illegible]} \end{cases}$ [illegible] $m\geq 3$[illegible]

(2) [illegible] p [illegible] q [illegible] p [illegible] q [illegible]

[illegible] $\begin{cases} m\leq 2 \text{[illegible]} \\ 1<m<3 \text{[illegible]} \end{cases}$ [illegible] $1<m\leq 2$.

[illegible] m [illegible] $(1,2]\cup[3$ [illegible] $\infty)$.

[illegible]

(1) [illegible] p [illegible] q [illegible]
[illegible]. [illegible] p [illegible] q [illegible] p [illegible]
p [illegible] q [illegible] q [illegible] p [illegible] q [illegible].

(2) [illegible]
[illegible].

3

PART THREE

[illegible]

1. □□□□□□□□□□

A. $5>2$ □ $7>8$　　　　B. $3>4$ □ $3<4$ √

C. $9\leq 7$　　　　D. □□ x^2 □ $3x$ □ 4 □ 0 □□□

□□　□□A□ p □ $5>2$ □□□□□ q □ $7>8$ □□□□□□ $p\wedge q$ □□□□□

□□B□ p □ $3>4$ □□□□□ q □ $3<4$ □□□□□□ $p\vee q$ □□□□□

□□C, $9\leq 7$ □□□□□

□□D□□□ x^2 □ $3x$ □ 4 □ 0 □□□□□□□□□□B.

2. □□“ $xy\neq 0$” □□

√A. $x\neq 0$ □ $y\neq 0$　　B. $x\neq 0$ □ $y\neq 0$

C. x □ y □□□□□□□ 0　　D. □□□ 0

□□　□□ $xy\neq 0$ □□ x □ y □□□□□ 0 □□□ A.

3. □□□□“p□q”□□□□□“□p”□□□□□□□

A. □□ p □□□□□□　　B. □□ q □□□□□□

C. □□ q □□□□□□　　D. □□ q □□□□□□□□□□□□□□ √

□□　“p□q”□□□□□□ p □ q □□□□□□□□□□. □ p □□□□□

∴p □□□□□

∴ □□ q □□□□□□□□□□□□□□. □□ D.

4. □□□□ p □□ $x>y$ □□□ $x<$ □ y □□□ q □□ $x>y$ □□ $x^2>y^2$. □□□① $p\wedge q$ □

②$p\vee q$ □③ $p\wedge$(□ q) □④ (□ p)$\vee q$ □□□□□□

A.①③　　B.①④　　C.②③ √　　D.②④

□□　□ $x>y$ □□□ $x<$ □ y □□□□ p □□□□□□□□ p □□□□.

□ $x>y$ □□ $x^2>y^2$ □□□□□□□□□ q □□□□□□□□ q □□□□.

□□□□□□① $p\wedge q$ □□□□□

②$p\vee q$ □□□□□

③$p\wedge$(□ q) □□□□□

④(□ p)$\vee q$ □□□□. □□ C.

5. p□□□x^2□$2x$□a□0□□□□□q□□□$f(x)$□$(a^2$□$a)x$□□□□□□“$p \wedge q$”□□□□

□“$p \vee q$”□□□□□□□□a□□□□□________________.

[0□□∞)

□□　∵□□ x^2 □ $2x$ □ a □ 0 □□□□□

∴Δ □ 4 □ $4a\geq 0$ □□□ $a\leq 1$.

∵ □□ $f(x)$ □ $(a^2$ □ $a)x$ □□□□□

∴a^2 □ $a>0$ □□□ $a<0$ □ $a>1$.

∵$p\wedge q$ □□□□□ $p\vee q$ □□□□□

∴p □ q □□□□□.

① □ p □ q □□□□ $0\leq a\leq 1$ □

② □ p □ q □□□□ $a>1$.

□①②□□□□ a □□□□□□ $[0$ □□$\infty)$.

[illegible]

KE TANG XIAO JIE

1. [illegible]

(1) [illegible] “[illegible]”“[illegible]”“[illegible]”.

(2) [illegible]“[illegible]”“[illegible]”“[illegible]”[illegible].

2. [illegible].

3. [illegible]“[illegible]”[illegible]. [illegible].

返回

4

PART FOUR

[illegible]

1. □□□□□

① □□□□□□□□□□□□□□② 10 □□□□□□ 5 □□□□

③ □□ x^2 □ 1 □□□ x □ ± 1 □　④ $3\notin\{1,2\}$.

□□□□□□□□□□□□□

A.1 □　　B.2 □　　C.3 □ √　　D.4 □

□□　①□□“□”□②□□□□③□□“□”□④□□“□”□□□ C.

2. 已知命题 p：$2^3\times2^2=2^6$，命题 q：$\lg2+\lg5=1$，则下列结论正确的是

A.“$p\vee q$”为真，“¬q”为真

√ B.“$p\vee q$”为真，“¬q”为假

C.“$p\wedge q$”为假，“¬p”为假

D.“$p\wedge q$”为真，“$p\vee q$”为真

解析　由题 p 假 q 真，则“$p\vee q$”为真，“$p\wedge q$”为假，“¬p”为真，“¬q”为假，故选B.

3. □□□□ p □□ $a>b$ □□ $a^2>b^2$ □□□ q □“ $x\leq 1$ ”□“ x^2 □ $2x$ □ $3\leq 0$ ” □□□□□□□□

□□□□□□□□□□□□

A. $p\wedge q$　　　　B. $(□p)\wedge q$ √

C. $(□p)\wedge(□q)$　　　　D. $p\wedge(□q)$

□□　□□ p □□ $a>b$ □□ $a^2>b^2$ □□□□□□

□□□□□ a □ 1 □ b □□ 2 □

□□ q □□ x^2 □ $2x$ □ $3\leq 0$ □□□□ $3\leq x\leq 1$ □

□□“ $x\leq 1$ ”□“ x^2 □ $2x$ □ $3\leq 0$ ” □□□□□□□□□□□□□.

∴ $p\wedge q$ □ $(□p)\wedge(□q)$ □ $p\wedge(□q)$ □□□□□ $(□p)\wedge q$ □□□□.

4. □□□□ p □□□ x^2 □ $2ax$ □ 1 □ 0 □□□□□□□□□ q □□□ $f(x)$ □ x □ $\frac{4}{x}$ □□□□□ 4. □□

□□□□□

① $p \wedge q$ □② $p \vee q$ □③ $p \wedge (□ q)$ □④ $(□ p) \vee (□ q)$.

□□□□□□□□□□

A.4 √B.3 C.2 D.1

[illegible] [illegible] p [illegible] x^2 [illegible] $2ax$ [illegible] 1 [illegible] 0 [illegible] Δ [illegible] $4a^2$ [illegible] $4>0$ [illegible].

[illegible] q [illegible] $x<0$ [illegible] $f(x)$ [illegible] x [illegible] $\frac{4}{x}<0$ [illegible].

[illegible]① $p\wedge q$ [illegible]

② $p\vee q$ [illegible]

③ $p\wedge($[illegible]$q)$ [illegible]

④ $($[illegible]$p)\vee($[illegible]$q)$ [illegible].

[illegible]3.

5. □□□□□□□□□$p∨q$□$p∧q$□□p□□□□□□□□$p∨q$□□□□□$p∧q$□□□□□□p□□
□□□□

A. p□3□□□□q□4□□□　　B. p□3□2□6□q□5>3

C. p□$a∈\{a$□$b\}$□q□$\{a\}∈\{a$□$b\}$　　D. p□$\mathbf{Q}∈\mathbf{R}$□q□$\mathbf{N}$□$\mathbf{N}$

□□　□$p∨q$□□□□□$p∧q$□□□□□□p□□□□□□p□□□□□q□□□□.

6. □□“□ $a<b$ □□ $2^a<2^b$” □□□□□ □ $a\geq b$ □ □ $2^a\geq 2^b$ □□□□□□□ □ $a<b$ □ □ $2^a\geq 2^b$.

7.□□□□□

p_1□"□α□$\frac{\pi}{6}$□□$\sin\alpha$□$\frac{1}{2}$"□□□□□"□$\alpha\neq\frac{\pi}{6}$□□$\sin\alpha\neq\frac{1}{2}$"□

p_2□"□□□$f(x)$□$\sin(x$□$\theta)$□□$f(x)$□□□□"□"θ□$\frac{\pi}{2}$"□□□□□□□□.

□□□□□□① $p_1\vee p_2$□② $p_1\wedge p_2$□③ (□p_1)$\vee p_2$□④ $p_1\wedge$(□p_2)□□□□□□□□

①④
__________.

□□ p_1□□□□□□□"□□□$f(x)$□$\sin(x$□$\theta)$□□$f(x)$□□□□"□"θ□$\frac{\pi}{2}$"□□□□□□

□□□□□p_2□□□□. □□$p_1\vee p_2$□$p_1\wedge$(□p_2)□□□□.

8.□□□□□“$p \vee q$”□□□□□□p□________□□□q□______□□.(□“□”“□”)

□□　□□□□□□□□□□□□□□□□□□□□p□q□□□□□□□□□□□□“$p \vee q$”□□□□□□□p□
q□□□□□.

9. □□□□□□□□□□□□□□□□□□□□□□□□.

(1) □□ y □ $\cos x$ □□□□□□□□□□□□

□ □□□□□“ p □ q” □□□□□□□□ p □□□ y □ $\cos x$ □□□□□□

q □□□ y □ $\cos x$ □□□□.

(2) □ $x\in\{x|x<1$ □ $x>2\}$ □□ x □□□□ $(x$ □ $1)(x$ □ $2)>0$ □□□

□ □□□□□“p □ q” □□□□□□□□ p □□ $x\in\{x|x<1\}$ □□ x □□□□ $(x$ □ $1)(x$ □ $2)>0$ □□□ q □□ $x\in\{x|x>2\}$ □□ x □□□□ $(x$ □ $1)(x$ □ $2)>0$ □□.

(3) □□□ x^2 □ x □ $2<0$ □□.

□　□□□□□“□ p” □□□□□□□□ p □□□□ x^2 □ x □ $2<0$ □□.

10. [illegible] p [illegible] x [illegible] x^2 [illegible] $2x$ [illegible] m [illegible] 0 [illegible] q [illegible] $f(x)$ [illegible] $\lg\left(mx^2 [illegible] x [illegible] \frac{1}{16}m\right)$ [illegible] $\mathbf{R}$ [illegible] $p\vee q$ [illegible] $p\wedge q$ [illegible] m [illegible].

□ □□□ x^2 □ $2x$ □ m □ 0 □□□□□□

□ Δ □ 4 □ $4m<0$ □□□ $m>1$.

□□□ $f(x)$□$\lg\left(mx^2$□x□$\frac{1}{16}m\right)$□□□□□ $\mathbf{R}$□

□ mx^2□x□$\frac{1}{16}m>0$□ $x\in\mathbf{R}$□□□□

□ $\begin{cases} m>0□ \\ \Delta□1□4m\times\frac{1}{16}m<0□ \end{cases}$ □□ $m>2$.

∵$p \vee q$ [illegible] $p \wedge q$ [illegible]

∴p [illegible] q [illegible].

[illegible] p [illegible] q [illegible] $m>1$ [illegible] $m \leq 2$ [illegible] $1<m \leq 2$.

[illegible] p [illegible] q [illegible] $m \leq 1$ [illegible] $m>2$ [illegible].

[illegible] m [illegible] $(1,2]$.

11. □□ s □□“p □ q” □□□□□“p □ r” □□□□□□□ s

A. □□□□　　　　B. □□□□ √

C. □□□□□□□ q □□□□□□　　　　D. □□□□□□□ r □□□□□□

□□　□□□□□□□“p □ r” □□□□□□□□□ p □□□□□ r □□□□□□□□□“p □ q” □□□□.

12.□□□□ p□□□□ $x\in\mathbf{R}$□□□□ ax^2□$2\sqrt{2}x$□$1<0$□□□□□□□□

□ q□ $f(x)$□$(2a$□$5)^x$□ $\mathbf{R}$□□□□□.□□□ $p\wedge($□ $q)$□□□□□□□ a

□□□□□□

A. $\left[\frac{5}{2}\right.$□ $\left.3\right]$　　　　B. $[3$□□$\infty)$

C. $[2,3]$　　　　D. $\left[2\right.$□$\left.\frac{5}{2}\right]\cup[3$□□$\infty)$

□□ □□p□□□□ $x\in\mathbf{R}$□□□□ ax^2□$2\sqrt{2}x$□$1<0$□□□□□□□□ a

□0□□□□□□□□

□ $a\neq 0$□□□□□□ $\begin{cases} a>0□ \\ \Delta□(2\sqrt{2})^2□4a\leq 0□ \end{cases}$ □□ $a\geq 2$.

□□q□$f(x)$□$(2a$□$5)^x$□$\mathbf{R}$□□

□□□□

$\therefore$ $0<2a$□$5<1$□□□ $\frac{5}{2}<a<3$.

$\because$□□$p\wedge($□$q)$□□□□□

$\therefore p$□□□□□q□□□□.

$\therefore \begin{cases} a \geq 2□ \\ a \leq \dfrac{5}{2}□ \ a \geq 3□ \end{cases}$ □ □ $2 \leq a \leq \dfrac{5}{2}$□ $a \geq 3$.

□ □ □ a□ □ □ □ □ □ $\left[2□\ \dfrac{5}{2}\right] \cup [3□\ □\ \infty)$.

13. [illegible]([illegible]p)$\vee$([illegible]q)[illegible]

① [illegible]$p \wedge q$[illegible]

② [illegible]$p \wedge q$[illegible]

③ [illegible]$p \vee q$[illegible]

④ [illegible]$p \vee q$[illegible].

[illegible]____①③____.([illegible])

[illegible] [illegible]([illegible]p)$\vee$([illegible]q)[illegible]p[illegible]q[illegible]

[illegible]p[illegible]q[illegible]

[illegible]$p \wedge q$[illegible]$p \vee q$[illegible].

14. 已知 p：$x^2-x\geq 6$，q：$x\in \mathbf{Z}$. 若“$p\wedge q$”“非 q”都是假命题，则 x 的值组成的集合为______________. {－1,0,1,2}

解析 因为“$p\wedge q$”为假，“非 q”为假，所以 q 为真，p 为假.

[illegible] $\begin{cases} x^2-x<6, \\ x\in \mathbf{Z}, \end{cases}$ 即 $\begin{cases} -2<x<3, \\ x\in \mathbf{Z}. \end{cases}$

[illegible] x 的值组成的集合为 $\{-1,0,1,2\}$.

15. □□ p □□□ y □ x^2 □ x □ 1 □□□□□□□□□ q □□ $\frac{1}{x}<1$ □□ $x>1$ □□□□□□□□□□□

□□□□□

A.(□ p)∨q　　　B.p∧q

C.(□ p)∧(□ q)　　　D.(□ p)∨(□ q) √

□□　□□□□□□□ p □□□□□ q □□□□□□□(□ p)∨(□ q)□□□□.

16. □□p□$(x□1)(x□5)\le 0$□q□$1□m\le x\le 1□m(m>0)$.

(1)□p□q□□□□□□□□□m□□□□□□

□ □$(x□1)(x□5)\le 0$□□□$1\le x\le 5$□

∵p□q□□□□□□

$$\therefore \begin{cases} 1□m\ge 5□ \\ 1□m\le □1□ \end{cases}$$ □□$m\ge 4$.

□□□m□□□□□□$[4□□\infty)$.

(2)□ m □5□ $p\vee q$ □□□□□ $p\wedge q$ □□□□□□□□ x □□□□□.

□　□□□□□ p □ q □□□□□

□ p□ q□ □ □ $\begin{cases} □1\leq x\leq 5□ \\ x>6□ x<□4□ \end{cases}$ □ □ □

□ p□ q□ □ □ $\begin{cases} x>5□ x<□1□ \\ □4\leq x\leq 6□ \end{cases}$

□□□$4\leq x<$□1□$5<x\leq 6$.

□□□ x □□□□□□[□4□□1)∪(5,6].

[illegible]

[illegible] **www.91taoke.com**